

Economic Indicators of Coastal Ecosystem Health



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Coastal Ocean Values Center

*National Ocean Economics
Program*

UCLA

Economic Activities in US Coastal Counties (National Ocean Economics Program and BLS)

3 million business establishments

45 million jobs

\$4.2 trillion in output



What does that
mean for local
Coastal management?

ZOOM IN

What Do We Know About Coastal Economic Health at the State Level?



The California Example

The California Coastal Economy

(National Ocean Economics Program and BLS)



762,000 business establishments
9.7 million jobs
\$945 billion in output

ZOOM IN
(again)

Get local.

What's the status
Santa Monica Bay's
Coastal Economy?



Get local.

What's the status
Elkhorn Slough's
Coastal Economy?

NOEP provides industry
data, but what about ...



How many homes?

How many beach goers?

How many bird watchers?

How many kayakers?

How many anglers?

How many divers?



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How many homes?

How many beach goers?

How many bird watchers?

How many kayakers?

How many anglers?

How many divers?

Who are these people?

What do they contribute to the local economy?

What businesses do they support?

What is the value of these activities?

What affects these activities?



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How will **climate change** affect these activities?



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How will **restoration** affect these activities?



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How will **marine protection** affect these activities?



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How will T.M.D.L.s affect these activities?



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How **resilient** are local communities?



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Economic Indicators for Local Coastal Activities

- Collected regularly (time series)
- Collected easily
- Collected rigorously
- Unambiguous Interpretation

Sample Economic Indicators: Off the Shelf

ACTIVITIES

Commercial fishing

Commercial Psgr Fishing Vessels

Beach visitation

Camping Park Visitation

Oyster production

Housing



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Landings, revenue, # vessels/yr

of trips, # of vessels (per yr)

visitors/year

of spaces/yr

Annual output (volume, \$)

Permits, property tax, MLS



Sample Economic Indicators: Elusive Activities

ACTIVITIES

Private Recreational Fishing

Recreational Boating

Kayaking

Coastal visits

Diving

Surfing



Sample Economic Indicators: Elusive Activities

ACTIVITIES

Private Recreational Fishing

Recreational Boating

Kayaking

Coastal visits

Diving

Surfing

INDICATORS

Bait sales

Marine Fuel

of rentals, # of tours, revenue/year

Parking data

Charters, tank fills

Wax sales



Sample Economic Indicators: Elusive Activities

ACTIVITIES

Private Recreational Fishing

Recreational Boating

Kayaking

Coastal

Divi

Surfing

INDICATORS

Bait sales

Marine Fuel

of boats

of people

of people

Wax sales

**EVEN BETTER – ROUTINE REGIONAL
PHONE SURVEYS OF COASTAL USERS**

(underway in Santa Monica Bay, Monterey Bay)



Why Collect Local Economic Info ?

- Know your constituents
- Understand relative importance of coastal uses



Why Collect Local Economic Info ?

- Make the links to coastal environmental quality personal:
- My house?
- My livelihood?
- My past time?



Why Collect Local Economic Info ?

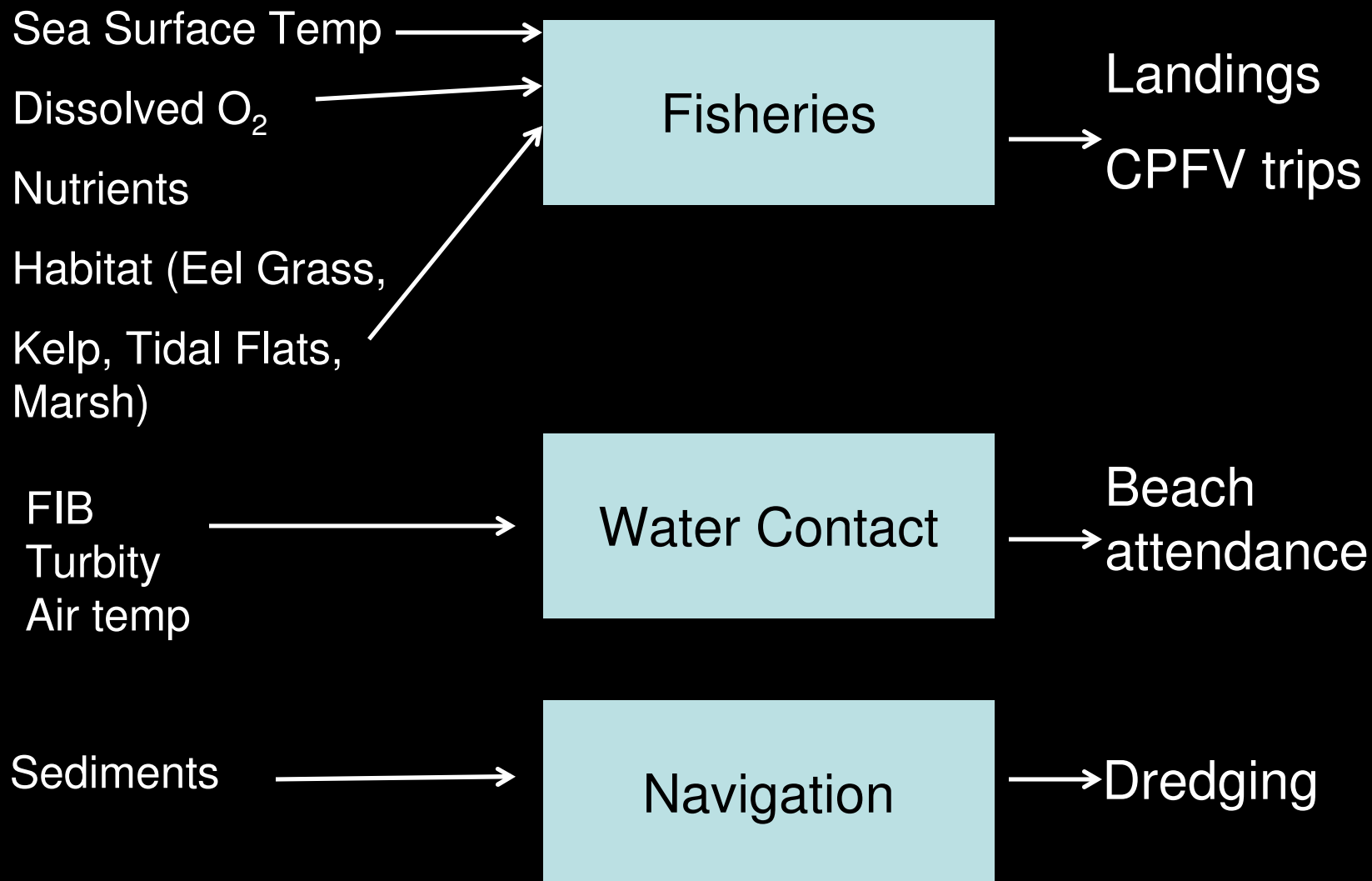
- Understand beneficiaries of management, marine protection, and restoration
- Understand value of local coastal uses
- How do these compare to the costs of management?



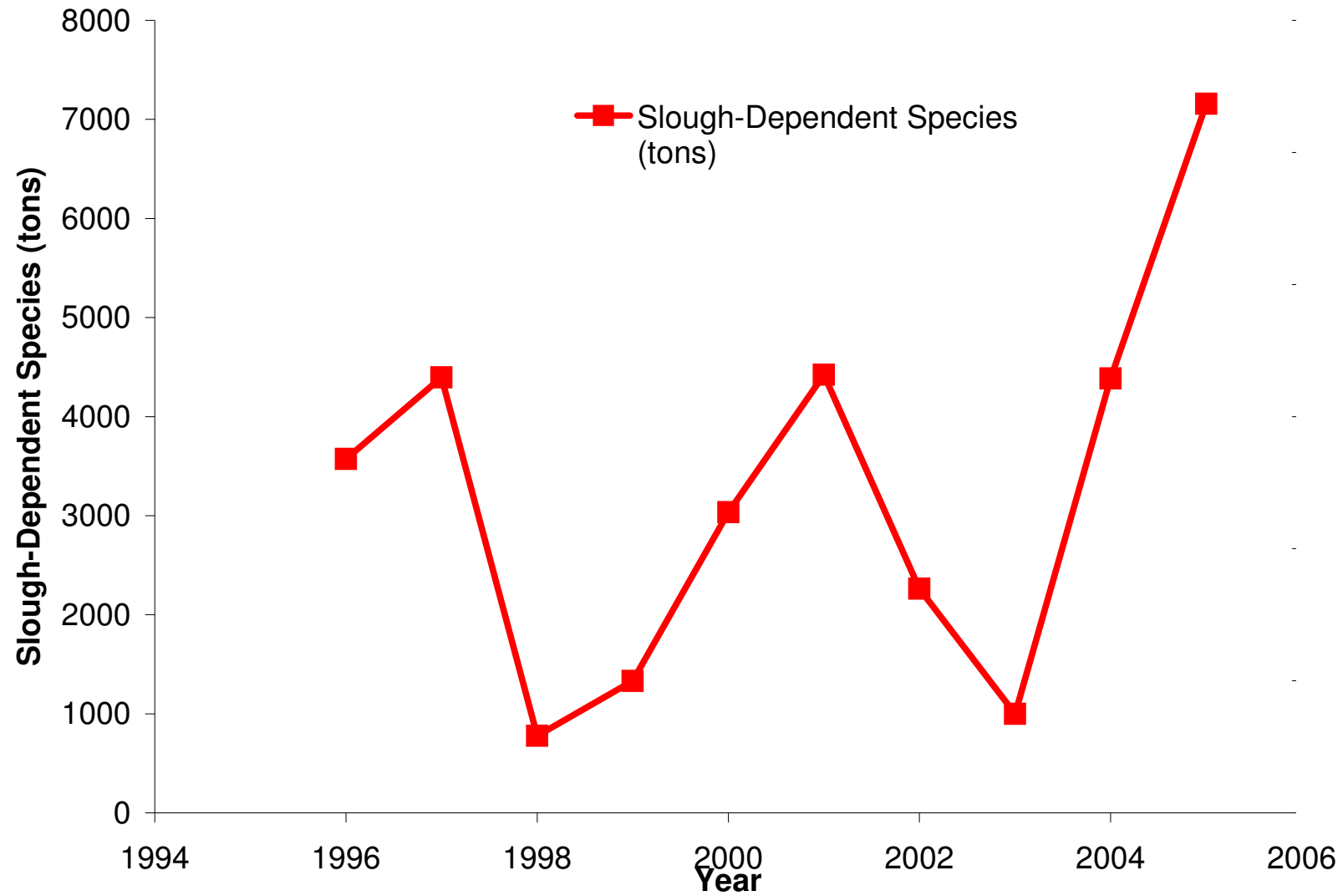
Why Collect Economic Indicators?

- Demonstrate impacts of environmental change (e.g. **climate change, erosion, pollution**)
- Demonstrate the outcomes of management and restoration (**economic performance measures**)
- Have monitoring data in place **before** potential impacts

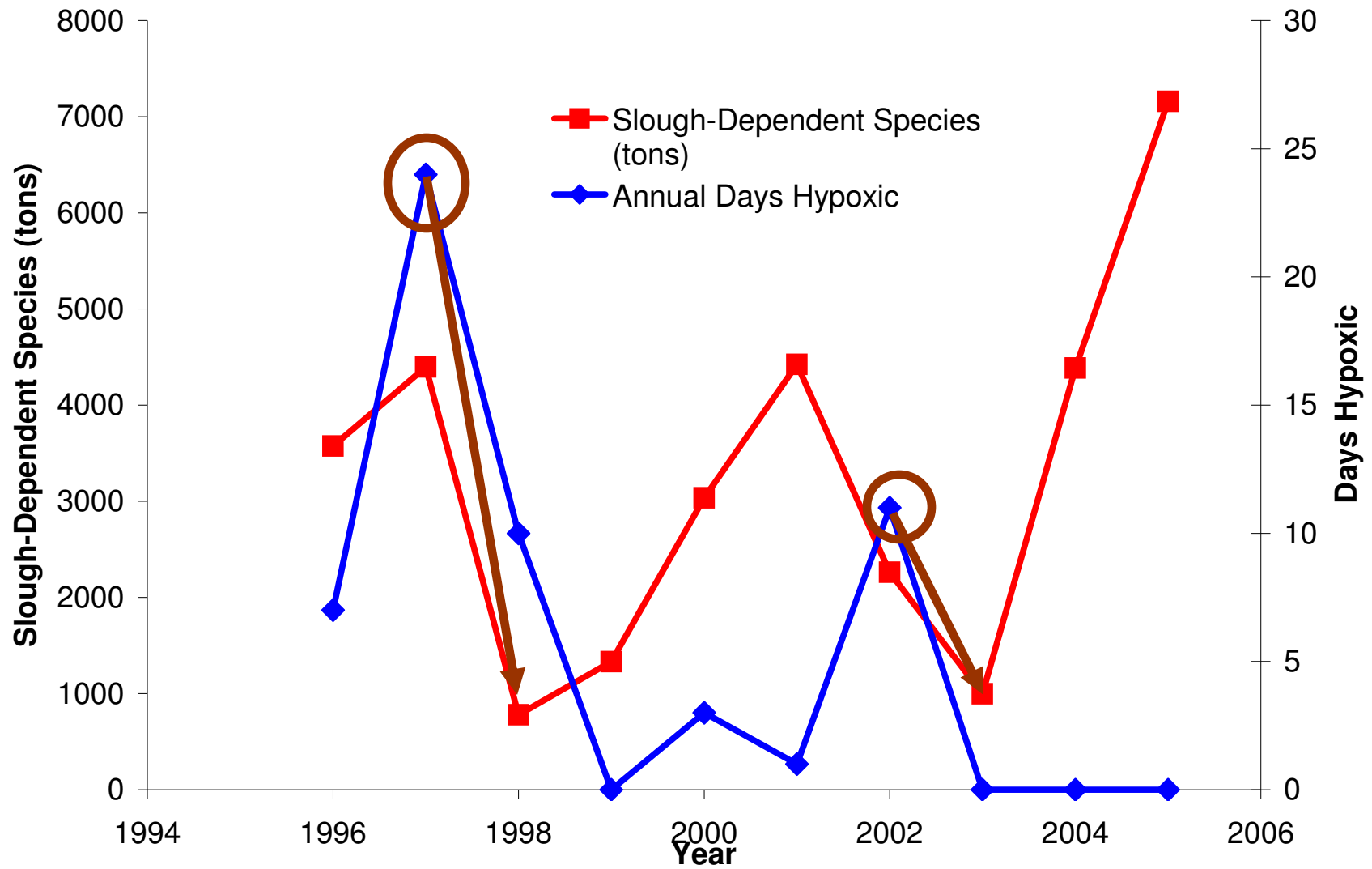
Linking Environmental Change to People



Commercial Fish Landings Elkhorn Slough



Commercial Fish Landings Elkhorn Slough



Other Explanatory Data

- Ecological and environmental variables (monitoring plans)
- Weather (NWS, IOOS)
- Demographic Information (US Census)
- Economic Data (BLS, US Census, NOEP)
- Regulation, Restoration, Climate
- Use Multivariate Techniques to Analyze

Coastal Ocean Values Center

(The Ocean Foundation www.oceanfdn.org)

*Initiating a Nationwide System of Economic Indicators
of Coastal Ecosystem Health.*

Current Sites:

Elkhorn Slough/Moss Landing, CA

Morro Bay, CA

Santa Monica, Bay

Future Sites:

10 -20 Sites from Apalachicola to Casco Bay Maine

Coastal Ocean Values Center

Partners

Government

NOAA's Coastal Services Center
National Ocean Economics Program

NGOs

Waterkeeper Alliance (Lead NGO partner)
Surfrider Foundation
Restore America's Estuaries

Coastal Ocean Values Expedition: 2008

- 20+ ports of call
- NERRS, NEPS, MARINE SANCTUARIES
- Workshops (developed with CSC)
 - Economic Tools
 - How to Collect Economic Indicators
 - Public Lectures
- Month-long site visits
 - Economic indicator plans
 - Economic data collection
- Central Web Site for Data Management



Special Emphasis on

- Apalachicola
- Indian River/Fort Pierce/Jacksonville
- Georgia/South Carolina
- North Carolina
- Southern Chesapeake Bay/Lower Eastern Shore
- Northern Chesapeake Bay/Annapolis
- New York/NJ
- Long Island Sound, and Peconic Bay
- Narragansett and Buzzard's Bays
- Gulf of Maine

For more information,
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Or

www.oceanfdn.org

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